

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of increasing the total oil content in a plant organism or a tissue, organ, part, cell or propagation material thereof, comprising

a) ~~the transgenic expression of a~~ transgenically expressing an oil synthesis enhancing protein polypeptide SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6 in said ~~in a starting plant organism or in a starting tissue, organ, part, cell or propagation material thereof so that a transgenic plant organism or a transgenic tissue, organ, part, cell or propagation material thereof is obtained,~~ and

b) ~~the selection of plant organisms~~ selecting said transgenic plant organism or said transgenic tissue, organ, part, cell or propagation material thereof in which ~~in contrast to or comparison with the starting organism~~ the total oil content is increased by contrasting to or comparing with ~~in said starting plant organism or in a said starting tissue, organ, part, cell or propagation material thereof is increased.~~

2. (Currently amended) The method as claimed in claim 1, wherein the oil ~~biosynthesis~~ synthesis enhancing protein is encoded by a nucleic acid sequence selected from the group consisting of:

a) a nucleic acid sequence comprising a nucleotide sequence which is at least 60% identical to the nucleic acid sequence of SEQ ID NO : 1, SEQ ID NO : 3 or SEQ ID NO : 5;

b) a nucleic acid sequence comprising a fragment of at least 30 nucleotides of a nucleic acid sequence comprising the nucleotide sequence of SEQ ID NO : 1, SEQ ID NO : 3 or SEQ ID NO : 5;

c) a nucleic acid sequence which encodes a polypeptide comprising an amino acid sequence at least about 60% identical to the amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6 and

d) a nucleic acid sequence which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6 or wherein the fragment

comprises at least 10 contiguous amino acid residues of the amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6[[,]].

3. (Currently amended) A method as claimed in claim 1 ~~or~~ 2, wherein the plant is an oil crop.

4. (Currently amended) A method as claimed in claim 1 ~~or~~ 2, wherein the total oil content in the seed of a said plant organism is increased.

5. (Currently amended) An expression cassette comprising, in combination with a regulatory sequence, a nucleic acid sequence selected from the group consisting of:

a) a nucleic acid sequence comprising a nucleotide sequence which is at least 60% identical to the nucleotide sequence of SEQ ID NO : 1, SEQ ID NO : 3 or SEQ ID NO : 5,

b) a nucleic acid sequence comprising a fragment of at least 30 nucleotides of a nucleic acid sequence comprising the nucleotide sequence of SEQ ID NO : 1, SEQ ID NO : 3 or SEQ ID NO : 5,

c) a nucleic acid sequence which encodes a polypeptide comprising an amino acid sequence at least about 60% identical to the amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6, or

d) a nucleic acid sequence which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6 wherein the fragment comprises at least 10 contiguous amino acid residues of the amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6

wherein said regulatory sequence is capable of mediating expression of said nucleic acid sequence in a plant.

6. (Original) An expression cassette according to claim 5, wherein said nucleic acid sequence encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6.

7. (Currently amended) An expression cassette as claimed in claim 5 ~~or 6~~, wherein the ~~promoter is~~ regulatory sequence comprises a seed-specific promotor.
8. (Currently amended) A genetically modified plant organism or tissue, organ, part, cell or propagation material thereof, comprising a polypeptide as defined in SEQ ID NO : 2, SEQ ID NO 4 or SEQ ID NO 6 or an expression cassette as claimed in ~~any of claims 5 to 7~~ claim 5.
9. (Original) A genetically modified plant organism as claimed in claim 8, wherein the plant organism is selected from the group of the oil crops consisting of *Borvago officinalis*, *Brassica campestris*, *Brassica napus*, *Brassica rapa*, *Cannabis sativa*, *Carthamus tinctorius*, *Cocos nucifera*, *Crambe abyssinica*, *Cuphea species*, *Elaeis guinensis*, *Elaeis oleifera*, *Glycine max*, *Gossypium hirsutum*, *Gossypium barbadense*, *Gossypium herbaceum*, *Helianthus annuus*, *Linum usitatissimum*, *Oenothera biennis*, *Olea europaea*, *Oryza sativa*, *Ricinus communis*, *Sesamum indicum*, *Triticum species*, *Zea mays*, walnut and almond.
10. (Canceled)
11. (New) A method of producing oils, fats, free fatty acids, free fatty acids or derivatives thereof, wherein said method comprises extracting oils, fats, free fatty acids or derivatives thereof from the genetically modified plant organism or tissue, organ, part, cell or propagation material thereof according to claim 8.
12. (New) The method as claimed in claim 2, wherein the nucleic acid sequence which encodes the oil synthesis enhancing protein comprising an amino acid sequence of SEQ ID NO : 2, SEQ ID NO : 4 or SEQ ID NO : 6.